

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Implementation of Sections 309(j) and 337 of)	WT Docket No. 99-87
the Communications Act of 1934, as Amended)	
)	
Promotion of Spectrum Efficient Technologies)	RM-9332
on Certain Part 90 Frequencies)	

REPLY COMMENTS OF MOTOROLA

Motorola, Inc. (“Motorola”) hereby submits these reply comments in response to the Commission’s *Third Further Notice* in the above-captioned proceeding.¹ The record in this proceeding demonstrates that the FCC should eliminate the requirement that any equipment authorization application submitted for certification after January 1, 2005, demonstrate that equipment is capable of operating on 6.25 kHz discrete channels or meets the relevant equivalent efficiency standard.

Sections 90.203(j)(4) and (j)(5) of the Commission’s rules indicates that applications for equipment certification received on or after January 1, 2005 will be granted only if the equipment is capable of operating on 6.25 kHz channels or meets an equivalent efficiency standard.² Prior to the 2005 deadline, EF Johnson, Kenwood U.S.A., and Motorola filed a petition with the Commission asking it to defer enforcement of this policy for a minimum of two

¹ *Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies*, Third Memorandum Opinion and Order, Third Further Notice of Proposed Rulemaking and Order, 19 FCC Rcd 25045 (2005) (“*Third MO&O*” or “*Third Further Notice*” or “*Order*”).

² 47 C.F.R. § 90.203(j)(4)-(5); *Third MO&O* at ¶ 24.

years.³ In response, the Commission temporarily suspended any requirement for 6.25 kHz or equivalent efficiency capability, pending further review of this issue.⁴ Essentially, the *Third Further Notice* seeks comment on the issues raised in that petition so that the Commission can determine whether to eliminate, extend suspension of, or reinstate a 6.25 kHz or equivalent efficiency requirement.⁵

As demonstrated in Motorola's initial comments on the *Third Further Notice*, 6.25 kHz or equivalent technologies are not sufficiently mature to justify a date-certain by which they must be incorporated into equipment.⁶ Indeed, standards work for 6.25 kHz equivalent efficiency technologies continues on a global basis.⁷ Accordingly, the market, not regulation, should be allowed to dictate the development and incorporation of 6.25 kHz or equivalent efficiency technologies into equipment, so as to ensure the most effective solutions are developed.

The record in this proceeding is clear and consistent that the imposition of 6.25 kHz or equivalent efficiency technology requirements on manufacturers now is overly burdensome and counterproductive to ensuring a timely transition to more efficient technologies.⁸ As noted by Kenwood, "[t]here [is] a need to continue work, already commenced, on 6.25 kHz standards, and a need to provide a standard digital platform for 6.25 kHz technology in order to insure

³ *Petition to Defer Enforcement of Section 90.203(j)(5) of the Commission's Rules*, EF Johnson Company, Kenwood U.S.A. Corporation, and Motorola, Inc., WT Docket No. 99-87 (July 14, 2004).

⁴ *Order* at ¶ 42.

⁵ *Third Further Notice* at ¶ 40.

⁶ Motorola Comments at 2.

⁷ *Id.* at 3 (both TIA in the United States and ETSI in Europe are working to develop a consensus standard for 2-slot TDMA in 12.5 kHz bandwidth).

⁸ *See Third Further Notice* at ¶ 40 (seeking comment on whether the current rule places onerous burdens on manufacturers and jeopardizes the promotion of interoperability).

interoperability and industry acceptance.”⁹ Absent such standards, manufacturers will be forced to deploy interim technologies in radios, solely to comply with this rule, that not only may not be the best technology choice for the end user but also may not be interoperable with other manufacturers’ radios.¹⁰ The addition of such technologies to radios could also substantially increase the cost of such radios, ultimately delaying the transition to 12.5 kHz technologies by discouraging end users from purchasing new radios.¹¹ This would be counterproductive to the Commission’s requirements for licensees to transition from 25 kHz to 12.5 kHz or equivalent efficiency technologies as finalized in the *Third Memorandum Opinion and Order* after significant debate and user input. Indeed, as Icom notes, continued enforcement of this rule will “create an environment that is hostile to the continued development and implementation of increasingly efficient equipment.”¹²

Based on this overwhelming record, Motorola reiterates its recommendation that the Commission eliminate the rules requiring use of 6.25 kHz technologies (Sections 90.203(j)(4) and 90.203(j)(5)) and should revisit the requirements of, and necessity for, mandating use of this technology only as the industry moves closer to the 2013 conclusion of the transition to 12.5 kHz systems.¹³ Until that time, manufacturers of 6.25 kHz or equivalent efficiency designs are

⁹ Kenwood U.S.A. Comments at 2.

¹⁰ Land Mobile Communications Council Comments at 4; M/A-COM Comments at 2.

¹¹ Land Mobile Communications Council Comments at 4.

¹² Icom America Comments at 5.

¹³ Motorola Comments at 4. In its initial comments, Motorola did not specifically recommend the deletion of Section 90.203(j)(4) in addition to Section 90.203(j)(5). Together, however, these two rule sections compel the transition to 6.25 kHz or equivalent technologies through the equipment authorization process and should therefore be considered in tandem, as did the Commission in granting the stay of their effectiveness in the *Order*. See n. 4 *supra*. To be clear, Motorola urges the elimination of both sections at this time and recommends that the Commission consider revisiting their future applicability only when the end of the 12.5 kHz transition is at hand.

certainly permitted to sell their products in these bands, which will provide valuable experience and information for a more accurate assessment of the validity and usefulness of such technologies in the diverse VHF/UHF marketplace.

In its comments, M/A-Com proposes two additional changes to the Commission's rules. First, M/A-Com urges the Commission to convert shared use channels below 470 MHz to exclusively licensed channels, arguing that under an exclusive licensing regime, a variety of technologies could be deployed and manufacturers could make cost/performance trade-offs when choosing what equipment to build, and operators could make cost/performance trade-offs when choosing what equipment to buy.¹⁴

Section 90.187 of the Commission's rules currently provides private land mobile radio service operators exclusive use of their spectrum when they deploy trunking technology.¹⁵ It is unclear whether the M/A-Com recommendation is to expand the applicability of this rule to encompass other advanced technologies or to embark on a wholesale conversion of these bands from shared to exclusive use. Thus, the M/A-Com proposal is not sufficiently detailed to allow any meaningful assessment of the impact to the diverse user base that occupies these bands. Therefore, Motorola believes that it would be premature for the Commission to entertain M/A-Com's recommendation regarding exclusivity in these bands. Motorola, however, would be willing to review a more specific proposal, taking into account customer requirements.

Second, M/A-Com recommends that the Commission rechannelize the 150-174 MHz and 450-512 MHz bands by shifting the channel centers by 3.125 kHz.¹⁶ It argues that this shift will

¹⁴ M/A-COM Comments at 5.

¹⁵ 47 C.F.R. § 90.187.

¹⁶ M/A-COM Comments at 5. *See also Petition for Reconsideration of the Second Report and Order filed by M/A-Com, Inc.*, WT Docket No. 99-87 (filed Aug. 18, 2003); revised Aug. 22, 2003).

yield more effective spectrum use at a transition stage and would allow for more technology choices.¹⁷ Motorola has previously opposed this recommendation on the basis that it would cause unnecessary disruption to the narrowbanding initiative, now entering its second decade.¹⁸ In fact, in its *Refarming* proceeding, the Commission considered and rejected this same proposal at least twice.¹⁹ Motorola believes that M/A-Com has presented no new arguments that would warrant reconsideration of these decisions.

In conclusion, the record clearly demonstrates that a mandated transition to 6.25 kHz or equivalent efficiency technologies at this time would be premature. The mandated inclusion of these technologies in equipment at this time would not only be burdensome on manufacturers but could also impact the implementation of proven 12.5 kHz technologies as directed by the Commission's most recent actions in this proceeding. Accordingly, the Commission should eliminate Sections 90.203(j)(4) and 90.203(j)(5) of its rules.

Respectfully submitted,

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¹⁷ M/A-COM Comments at 5.

¹⁸ See Reply Comments of Motorola, WT Docket No. 99-87, submitted October 6, 2003, at 10.

¹⁹ See Report and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 10076, ¶26 (1995) (rejecting a proposed channel shift in the VHF and UHF bands, finding that most existing licensees believed it critical that they remain on their existing channel and that retaining the existing channel centers would minimize confusion throughout the migration). See also; Memorandum Opinion and Order, 11 FCC Rcd 17676, ¶ 2 (1996) (denying several petitions for reconsideration seeking a shift in the VHF and UHF channelizations).